CONTINUED ASTROMETRIC FOLLOW-UP OF NEAR-EARTH OBJECTS

Grant NNG04GL97G

Final Report

For the period 01 May 2004 through 30 April 2005

Principal Investigator

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As the grant periods overlapped, some of this information below will also be present on the previous final report.

During the period May 1 2004 to April 30 2005, approximately 100 NEOs fainter than V = 20 were observed on separate nights from the 1.2-m telescope at Mt. Hopkins. Additionally, a few comets were targeted, including astrometric support of the Deep Impact mission by observing comet P/Tempel 1.

Kyle Smalley was again employed as an independent contractor, and he was trained in use of the telescope, performed several remote observing runs on his own, and has now begun critical software support of the observing program. Code to automatically operate the telescope, given a target list, is approximately 90% done. During the first observing run scheduled in late September or early October, this code will be tested at on the telescope. It is probable that the 1.2m telescope will be run automatically all night without any interruption from the observer for anything during this time.

Additional work on selecting which NEO targets to observe is progressing, with a beta-release of a simple target selection web page. Additionally, two-night objects with the potential of being NEOs have been extracted on a routine basis during this last grant cycle. These will also be added to a web page to facilitate additional astrometric follow-up.